

MEDICAL REVIEW

A Weekly Journal of Medicine and Surgery

VOL. XL, No. 8 }
WHOLE No. 939 }

ST. LOUIS, MO., AUGUST 26, 1899 { YEARLY SUBSCRIPTION, \$1.00
SINGLE COPIES, FIVE CENTS

Original Articles

EXCISION OF THE RIGHT SUPERIOR CERVICAL GANGLION OF THE SYMPATHETIC FOR GLAUCOMA, WITH REPORT OF CASE.*

BY JAMES MOORES BALL, M.D., St. Louis.

Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons.

I DESIRE to make this preliminary report of what is believed to be the first operation made in America for excision of the superior cervical sympathetic ganglion in glaucoma. For the sake of priority this report is submitted a few days after the operation.

Mrs. Barbara Sutter, aged 56, was brought to the eye clinic of the College of Physicians and Surgeons, May 10, 1899. Patient is deaf and dumb. Has had pain in and around right eye for two months. Vision in this eye is reduced to light perception; tension is +3. Pupil is widely dilated. Anterior chamber is shallow. Cornea cloudy, and slightly anesthetic. Media slightly cloudy, still allowing fundus to be seen. Episcleral vessels enlarged. Circumcorneal injection present. Optic nerve is cupped. The diagnosis of chronic irritative glaucoma was made. Left eye presents immature cataract. Vision in left eye is $\frac{2}{80}$.

Knowing the flattering results obtained by Jonnesco and others, by excision of the superior cervical ganglion in absolute glaucoma, the operation was explained to the patient through an interpreter and permission obtained to operate. On May 15, 1899, the patient was anesthetized, chloroform being employed. An incision four inches in length was made on the right side downward from the mastoid process extending along the posterior border of the sterno-cleido-mastoid muscle. The external jugular vein was cut and tied. The sterno-cleido-mastoid was then separated from the trapezius muscle and the spinal accessory nerve was cut. A deep dissection was then made, exposing the carotid sheath. This was opened to enable us to locate the pneumogastric nerve beyond question. The carotid, internal jugular and pneumogastric nerve were then pulled forward, enabling us to see the rectus capitis anticus major muscle, on which the superior cervical ganglion rests. Tearing through

the fascia the ganglion was found and stripped. The ganglion was then cut high up with curved scissors and all its branches severed. About one inch of the trunk of the sympathetic below the ganglion was removed. There was no change in the pulse or respiration. The wound was closed with interrupted sutures and the neck placed in a plaster cast. The time required for operation was fifteen minutes. Immediately after the operation it was noticed that the right eye was suffused with tears, the right conjunctiva much injected and the right nostril was moist. The intra-ocular tension was +2. Patient slept well all night, being free from pain for the first time in over two months; temperature at 7:30 P.M. was 99.2°; pulse 80. The patient's temperature has not at any time exceeded 99.8°, nor has her pulse exceeded 90. Tension has steadily decreased to +1. She was discharged from the hospital on May 20th.

On May 16th slight ptosis was noticed on the right side. This symptom is yet present.

On May 19th the circumcorneal injection was much less; the conjunctival hyperemia and lachrymation were still present, while the ptosis was slightly increased and tension was +1.

The immediate relief of pain in this case following the operation leads me to conclude, that in absolute glaucoma excision of the superior cervical ganglion is justifiable, even though no other beneficent result be obtained. This operation is much preferable to enucleation.

The flattering reports which have been published in foreign medical literature by Jonnesco and others, regarding the value of excision of the superior cervical ganglia in exophthalmic goitre, would lead me to operate on such cases at the earliest opportunity, provided ordinary medicinal treatment has failed.

In regard to glaucoma without complete loss of vision, I shall certainly employ this operation at the earliest possible date.

In conclusion, I desire to thank Dr. Willard Bartlett and Dr. E. C. Renaud for valuable assistance during the operation; and Dr. H. L. Nietert, superintendent of St. Louis City Hospital, for privileges in the dead-house. The operation was witnessed by Drs. Bartlett, J. C. Murphy, Fisher, Emory Lanphear, C. Heide-man and O. F. Ball, of St. Louis, and Dr. Davis, of Independence, Kansas.

*Read before the St. Louis Medical Society, June 3, 1899.

GASTRALGIA; ITS DIAGNOSIS AND TREATMENT.

By CHARLES J. BOSWELL, M.D., Beechwood, Ills.

GASTRALGIA may be either functional or organic. The form here described is that which is entirely dependent on a functional neurosis and independent of organic changes in the stomach proper.

The affection is characterized by intense paroxysmal pain in the epigastric region, usually accompanied by other nervous symptoms and independent of organic disease. Although occurring in men, it is most frequently met with in women who are suffering from over-work, either mental or physical, and is frequently accompanied by hysteric manifestations together with anemia, menstrual irregularities and constipation. The paroxysms usually come on independent of the taking of food and are so severe at times as to cause the patient to experience cold clammy perspiration, with pale face and anxious expression, resembling in this an attack of biliary colic, a condition with which it is frequently confounded.

In making a differential diagnosis of gastralgia, there are four different affections with which it may be confounded, viz.: gastric crises of locomotor ataxia, biliary colic, gastric cancer and gastric ulcer. In considering functional gastralgia and gastric crises of tabes, the physician should first take into consideration the absence of the other cardinal symptoms of the latter, viz.: the ataxic gait, loss of knee-jerk, lightning pains, incoördination and history of syphilis or alcoholism.

Cancer and ulcer of the stomach are usually accompanied by vomiting of blood or of broken-down tissue; the pain is increased on taking food or on pressure, and in cancer a tumor can usually be outlined. In functional gastralgia, vomiting is rare, taking of food has no effect on the pain, which is relieved to some extent by pressure. Biliary colic is accompanied by jaundice and clay-colored stools and the pain is more to the right than in gastralgia. In summing up, it should be remembered that it is most frequent in females of nervous temperament, with a considerable lapse of time between attacks, which are not accompanied by vomiting or symptoms of indigestion. They occur most frequently at night and are relieved by pressure.

The treatment may be divided into that for immediate relief of pain and the curative. There is probably no case which is capable of giving a doctor more trouble than a case of gastralgia, especially when occurring in a hysteric woman, and there is none where the treatment is more difficult to direct. But from recent personal experience in a number of cases, I am convinced it can be cured if properly managed. In the majority of cases nothing short of opium in some form will relieve the paroxysms of pain. It is prefer-

able to administer it by the mouth combined with some other drug in order that the patient may not know what is being given, as these patients are very prone to develop the morphin or opium habit. I administer 15 drops of tinct. of opium with 10 drops of chloroform, and repeat every hour and a half until pain is relieved; or, if a very urgent case, I administer a hypodermic of morphine and atropin. This should be avoided as much as possible, for it is bad practice to leave opium in any form to be administered in the physician's absence. As to the curative treatment, I have found nothing which is more efficacious than arsenic. I give it in the form of Fowler's solution either alone or combined with some bitter tonic. When given alone, and I usually prefer it this way, as it is easier to control the dose, I direct the patient to begin with three drops in water after each meal, increasing one drop each day until a dose of ten drops three times daily is attained. This should be a continued dose until the physiologic effects of the drug are noticed, when it will be necessary to fall back to three drops, and increase as before. By this plan of administration the full physiological effects of the drug can be obtained without the toxic results, and the remedy may be continued for a long period. As a nerve sedative, and to relieve the existing constipation, I prescribe:

R Argenti nitratis
 Ext. podophyllin..... āā gr. v.
 Ext. hyoseyamus..... gr. x.
 Sacch. pepsin..... ℥ij.
Mx. ft. cap. No. xx. Sig.:—One at meal time.

If there is irregularity of the menstrual function, it should be corrected if possible, and the patient should be instructed to eat plenty of nutritious food and take out-door exercise. I have found horse-back riding especially beneficial. The mind should be kept as free from effort and worry as possible, and the patient impressed with the fact that recovery is certain.

A SINGULAR automobile accident is reported as having occurred to the celebrated Dr. Playfair of London. He was going up a hill when something gave way, and the carriage began to roll backward down the slope. The power brake was applied to the rear wheels, and as the carriage was going in that direction the carriage stood upon end instead of stopping. Dr. Playfair was bruised, but not seriously injured. The automobile has been regarded favorably from a public health standpoint, not only because it is cleaner than a horse, but much more safe, as it does not run away with anything like the frequency of animal-propelled vehicles. If, however, it is to rear itself on the hind wheels and fall backward upon its luckless occupants, one might better resort to horseback riding, as even the most vicious brute can do no worse than this.

Correspondence

CHICAGO, August 21, 1899.

Editor MEDICAL REVIEW.

I seize the first opportunity since my return on Saturday last from a trip down the Illinois river with the Stream Examination Commission, to acknowledge the receipt of your request to contribute a paper to the MEDICAL REVIEW, discussing the Chicago Main Drainage Channel and Sanitary Waterway, and in declining I beg you to believe that my refusal is not based upon want of appreciation of the point you make, as to the interest of physicians in St. Louis and Central Illinois in the subject, nor of Dr. Starkloff's earnest and learned academic discussion of the subject, but solely on the ground that I believe the time for such discussion has long since passed.

We are now on the very eve of putting the question to the test of practical experiment, and no amount of argument, pro or con, can influence the result, which we shall know, beyond peradventure or speculation, within a few months. What Chicago confidently expects that result to be, may be inferred from a consideration of the following simple statement of facts, without argument:

The total area of the State of Illinois is 56,000 square miles. Excluding Chicago, the area of the Illinois river watershed is 27,914 square miles, or 49.8 per cent. of the total, and this the most densely populated area of the State.

This implies that the sewage and foul wastes of more than one-half the total population of the State, outside of Chicago, always has discharged and still continues to discharge into the Illinois river, and thence into the Mississippi, without treatment or special dilution.

Again: For the last fifteen years the concentrated foulness of the unspeakably foul South branch of the Chicago river has been pumped, via the Illinois and Michigan canal, into the Illinois river, and thence into the Mississippi, in a state of what Dr. Starkloff graphically styles "the very quintessence of sewerage putridity," while a large proportion of the remainder of Chicago's sewage finds its way to the source of its water supply.

These are the conditions, not theories, which confront Chicago and the Illinois River Valley, and they admit of no discussion or argument, but of treatment only.

That treatment we are about to apply through the Sanitary Waterway—the "ditch," as our friends, the enemy, call it. Through it we shall dilute the sewage output of Chicago—of which the equivalent of more than one-half now finds its way undiluted into the Illinois river, with pure Lake Michigan water in the proportion of 2160 gallons per day for every

man, woman and child living in the Sanitary District. Or, to put it another way, we shall add 20 gallons of pure water to every gallon of our sewage, and so help make it innocuous to health and inoffensive to the senses.

This may not be an ideal scientific solution of the sewage disposal problem of Chicago, but it certainly cannot make the Illinois river or the Mississippi any worse, and there is every reason to believe that it will very much improve the sanitary condition of both streams—to say nothing of the economic betterment which must inevitably result from the addition of a constant flow of from 300,000 to 600,000 cubic feet (1,930,000 to 3,860,000 gallons) of pure, fresh water every minute.

It may be added that we shall soon know, and definitely, just what changes in sanitary quality are caused by this dilution, through the thorough and exhaustive chemic and bacteriologic examinations of the waters of these streams now being conducted by three independent sets of investigators, including the laboratory staffs of the Illinois State and the Chicago Universities.

And in this latter connection, I cannot refrain from again expressing my regret that the city of St. Louis did not see fit to accept the repeated invitation to join these examinations. Nothing but good could have resulted from St. Louis' participation in this search for the facts. Nothing of good can now result from further discussion or argument. I am, my dear Doctor,

Faithfully yours,

ARTHUR R. REYNOLDS, M.D.,
Commissioner of Health.

Notes and Items

THE news from India shows an increase in the plague in Poonah, where on July 23 there were 116 cases and 82 deaths. There is a partial failure of the crops in the central provinces of India, due to drouth, and an excessive precipitation in Bengal. It is greatly feared that there will be a repetition of the famine of a few years back, and with it will come an extension of the plague.

It is reported that Dr. D. D. Robinson recently brought a suit against a New York millionaire for ten thousand dollars for ten visits. According to the *Cincinnati Lancet-Clinic*, a surgeon in San Francisco was voluntarily paid \$30,000 for performing a successful operation for appendicitis. It is reported of Dr. H. A. Kelley of Boston, that for an operation on a mine owner's wife and twenty-one days' attention, he was paid \$21,000. Dr. Tiffany of Baltimore received \$10,000 for an operation; Dr. Chambers of the same city \$5,000 for operating for a stab

wound. Dr. T. C. Parks of Chicago received \$10,500 for a surgical operation.

THE dangers of the X-ray are not to be exaggerated. The recent suit for mal-practice, to which we referred editorially some weeks ago, is in point, as well as numerous frightful accidents which have been reported in the medical press. F. H. Williams, of Boston, says that these may be avoided in a large measure by placing the Crooks tube two or three feet away from the patient when the fluorescent screen is used, and three feet or more away from the part, when taking Roentgen ray pictures. Place between the patient and the tube a thin screen of aluminum grounded by being connected with a wire to the gas pipe.

FRANK HOWELL, a young man of eighteen, died at Marshalltown, Iowa, of typhoid fever, complicated by hemorrhage of the bowels, about June 25. He had no medical treatment and was treated by a so-called preacher and Christian Scientist. The young man was treated for a belief that he was sick, and was kept at work until a hemorrhage of the bowels and death took place. The attendant's name was Roberts, and all through Howell's illness maintained that he (Howell) was not sick. He signed the death certificate and gave the cause of death as hemorrhage of the bowels. Could anything be more absurd from a Christian Science standpoint than the brutality of the law in compelling Roberts to issue a death certificate, and insisting on his giving a cause of death? According to the best tenets of this faith, Howell was not dead; he did not have hemorrhage of the bowels, and it was altogether useless to bury him because his body did not exist anyway, and the grave was only a hole in the imagination.

THE anti-vaccination crusade, so vigorously in evidence at the time the last bill was before Parliament, making vaccination compulsory, found added strength in certain official utterances regarding the relation between vaccination and leprosy. Dr. Blakewell, in 1871, Vaccinator-General of Trinidad, reported to the select committee of the House of Commons that the spread of leprosy in the tropics was largely attributable to vaccination. A recent report of Dr. Smith, inspector of leprosy to the Canadian Government, states "that at the present time there are twenty-one inmates in the Tracadie Lazarette, representing all stages of leprosy; that vaccination for small-pox is a frequent cause of production of the disease." These statements from official sources have been used for all they are worth by anti-vaccinationists. Doubtless there is something in the contention that leprosy may be transmitted by arm to arm vaccination, but the use of bovine virus absolutely precludes any such transmission. Undoubtedly, with arm to arm vaccination, there was danger of transmission of communicable disease from one person to another;

but so far as leprosy is concerned, that disease is absolutely excluded with bovine virus, as there is evidence of a positive character showing that the herbivora are immune to this infection.

THE Illinois State Board of Health, at its meeting in Chicago, July 11, 1899, has interpreted that clause in the late medical practice act which states that graduates of Illinois institutions *may* be admitted to practice without an examination, as giving discretionary powers to the board in this respect. There is some obscurity in the wording of the law in some other paragraphs, so that the attorney-general gave his opinion that the board did not have discretionary power in this respect, and those could practice without further examination who graduated from Illinois institutions. The board has taken the stand that it would be fairer to all parties concerned to have everyone submit to an examination, and if this interpretation of the law is faulty, the court will have to interpret the act. This action was taken in pursuance of a resolution passed by each of the three largest medical schools in Chicago, requesting the board not to recognize any diploma. The first regular examination, under the new act, will be held at the Great Northern Hotel in Chicago, October 1 to 4, 1899. The rules promulgated at this examination are, that a failure to pass this examination will cause the candidate to forfeit the opportunity to take another until six months had elapsed.

THE following quaint description of a thoracic resection is taken from a paper read by F. W. Parham. It was made by Lazarius Riverius, whose work was translated by Nicholus Culpepper, London, 1568. "M. de Biffin, captain of a band of soldiers, had for a long time a scirrhus, or hard senseless tumor, in his left side upon the true ribs, viz., the fifth, sixth, and seventh. A certain surgeon opened the tumor with an actual cautery, out of which there came a very little matter, and there remained very grievous pains in the part; which compelled him, living in the country, to come to Grenoble and implore my help. I found the ulcer as big as the palm of one's hand, and the ribs underneath infected more than half their length with rottenness. Premising, therefore, universal medicaments, I cut off the extremities of the ribs, the quantity of four fingers' breadth, applying afterward an actual cautery to their extremities. Finally, with catagmatical powders I procured a separation of the burned parts, and with detergent and incarnating medicines I did heal up the ulcer and bring it to a scar." Parham states that this case is probably correctly classified by Quenu and Longuet as one of the osteosarcoma; but the description does not justify one in saying that it may not have been tuberculous disease of the ribs, or carcinoma.

MEDICAL REVIEW

A WEEKLY JOURNAL OF MEDICINE AND SURGERY

EDITED AND CONDUCTED BY

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YEARLY SUBSCRIPTION, \$1.00

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Entered at the St. Louis Postoffice as Second-Class Matter

AN INTERNATIONAL PHARMACOPEIA.

The question may well be asked, whether the time is not now approaching when an international pharmacopeia may be adopted with advantage. The confusion that has crept into some of our dispensaries with reference to quotations from different national pharmacopeias, could be easily eliminated by an international body correcting some of the slight, and often needless, discrepancies in the qualities of different ingredients entering into the composition of certain preparations. The world is becoming smaller each year, and the number of people who travel is increasing enormously. In addition, the stronger nations are acquiring territory in the different parts of the world, in many cases encompassing alien populations with different languages and customs. The difficulty of prescribing for a man, and the improbability of his being able to get a prescription filled correctly in a foreign country, are enormously increased by the want of uniformity in the pharmacopeias of different nations. The universality of medical science would seem to make this entirely unnecessary. The initiative could be taken at the International Congress of Physicians in Paris, next year. The language of the international pharmacopeia would, of course, be the natural tongue of the country in which it was issued; but uniformity could be secured in weights and measures and in the quantities of ingredients entering into the different preparations.

THE GONOCOCCUS AS A PRODUCER OF DISEASE.

It is within a comparatively few years since the identification of this germ that gonorrhea has been regarded as extremely virulent. It has taken much experimental research and not a little earnest writing to disabuse the professional mind of the innocuousness of this infection. Within the last month a writer in a prominent medical journal stated that gonorrhea was

a purely local disease, and by inference one would conclude that it never became a general constitutional disorder. Scarcely an organ in the body or a single tissue has been described as not having been ravaged by this germ. To the long list have been added some recent observations upon peritonitis, due to this infection. General peritonitis has long been regarded as a mixed infection, but of late, writers have been identifying cases in which there are pure cultures of the gonococcus, and that acute general inflammation of the abdominal cavity may be caused by this germ has been conclusively shown. The analogy between the endo- and pericardium and the peritoneum would lead one to think of the possibility of a pure gonorrheal inflammation of the peritoneum. It is only of late, however, that this has been definitely demonstrated. The disease pursues a much more benign course than those dependent upon the ordinary septic micro-organism, but is somewhat more chronic and is comparatively rare, notwithstanding the great frequency with which pelvic disease is associated with this disorder.

INTESTINAL ANTISEPTICS IN TYPHOID FEVER.

A correct comprehension of pathology must ever underlie a rational therapy. If we inquire into the origin of the intestinal antiseptic method of treating typhoid, we find that it is founded on the identification of the typhus bacillus, and the view that this bacillus had its habitat in the solitary glands of the small intestine, where it flourished, and where ptomaines were evolved, which poisoned the system. The analogy between certain infectious diseases which are essentially local, such as diphtheria and tetanus, whose constitutional reaction is due to absorbed ptomaines, was easily applied to typhoid fever. Hence a disinfection of the intestinal tube and of the ulcerated surfaces of Peyer's patches was a rational procedure, and for a time the only criticisms that were leveled at this treatment was the practical impossibility of carrying antiseptics into the intestinal tube in a sufficient quantity to destroy the bacilli or to disinfect the contents of the bowel. The principle was generally believed to be good, providing it could be done, criticism being leveled at the inefficiency of the means employed. The later view of typhoid fever regards it as essentially a constitutional affection, in which the ulceration of Peyer's patches is a local and by no means universal complication, it, however, being one of the most constant pathologic findings in this disease. The enlargement of the mesenteric lymph glands and the spleen are almost universally present, the constitutional reaction not depending upon the extent or degree to which Peyer's patches are involved, some cases of a severe type presenting comparatively little involvement of these structures, while others lead to early fatal ulceration and death from perforation.

That view of typhoid fever necessarily contradicts the view that by disinfecting the intestinal tube, typhoid fever may be aborted, but it does not necessarily imply that intestinal antiseptics are of no value in the treatment of this disorder. Undoubtedly there is great bacterial activity in the intestinal tube and, so far as possible, it is necessary to relieve the intestines and keep them free from fermentation. The mistake is to suppose that by so doing one is treating the disease typhoid fever, when in fact he is simply doing a wise thing in the care of the individual. He is putting him in the best possible position to live through the fever, remembering that it is a constitutional, self-limited disease, in which, if we can keep the patient in good condition and prevent complications, life will certainly be preserved.

The care of the intestine in this disease ranks like the care of the skin, the urinary apparatus and the respiratory tract; it is one of the things that needs attention, but in so doing we are not treating the disease typhoid fever, but we are doing something that is useful for the patient, and which puts him in a better position to live through the disease.

ARREST AND INDICTMENT OF "DIVINE HEALERS."

When the history of the close of the 19th century is written, one of its most curious chapters will deal with the revival of faith healing, which began to attract the attention of a considerable number of people about fifteen years ago in the form of "Christian Science." This epidemic had its origin in Boston, from which point it slowly spread over the entire country. In the earliest days of its progress it was along certain definite lines, but as the movement gathered momentum, offshoots began to appear and special types of "Divine Healers" sprang up in different parts of the country. Now scarcely a daily paper can be consulted in which there is not an account of some judicial proceedings against a healer. One of the latest is that reported in the *Chicago Daily News* of Wednesday, August 9, 1899.

Some years ago, a small church was started on Stony Island Avenue, known as "Zion," which was under the charge of one Dowie, a faith healer.

In connection with it, a publication office was established which printed a periodical called "Leaves of Healing." From these small beginnings, the society gradually grew and finally acquired quarters in a large vacant church, and later rented a large vacant hotel, which was run as a sort of faith healing hospital or sanitarium.

A death in this institution, of a woman who died from virulent blood poisoning, was followed by a coroner's investigation, which held "Elder" Dewitt C. Holmes and Mrs. Henrika Bratsch to the grand jury.

In its decision, the jury decided that the "Divine Healers" had administered in a temporal way to their patient, which brought them within the terms of the statutes of the medical practice act. The testimony was to the effect that Mrs. Bratsch acted in the capacity of a midwife and, while she had devoted much time to prayer, the witness testified that the woman had performed certain functions which are left to physicians. In her own behalf, Mrs. Bratsch testified as follows: "When I was called in to attend Mrs. F., I went to her and asked her if she was willing to trust to the Lord to deliver her. She replied that she had faith, and I prayed with her. I have attended many such cases and this is the first time I have ever experienced any such misluck." In answer to what her charge for these services was, she stated that she made none, but that she usually received a "gift" of about eight dollars for attending similar cases.

"Elder" Holmes, in his testimony, admitted having been present in the sick chamber, but said that he had only prayed for Mrs. F. This statement was made in the face of the allegations of the husband of the deceased, that Holmes had jumped upon the bed and raised the sick woman in his arms while his accomplice administered to her. Holmes gave his address as "Zion," 12th St. and Michigan Avenue. The clerk who subpoenaed him to be present, reported to Deputy Coroner Elbe, that he found Holmes occupying a sumptuous suite at "Zion," with two young women attendant upon him, acting as maids in waiting.

This is the first verdict given in Chicago against a "Divine Healer" for the death of a patient. Efforts have been made previously to suppress Dowie and his faith healers, under the old medical practice act, but without success.

Superstition and demonology have attended the practice of medicine ever since functions of priest and physician were united in the same individual. Remnants of these have been handed down to us from the earliest times. Many believe that faith healing and Christian Science is a new fad, but, as a fact, it is older than modern civilization; it has simply changed its form. More than thirty years ago there was a faith healer in Chicago who had a large following and whose practices were quite as extraordinary as any that have been exploited by Dowie. Before that time and for a period considerably antedating the Christian Scientists, a certain class of the Spiritualists claimed to have the power of curing disease through the influence of disembodied spirits. The rise and fall of these early movements are easily traced, and serve to teach us that there is nothing new in these late movements; that they are all psychologic epidemics which have their rise, progress and decline. The substance of all these beliefs remains the same; they merely change their external form and ritual from time to time.

Society Proceedings

ST. LOUIS MEDICAL SOCIETY.

MEETING JUNE 3, 1899, DR. JOSEPH GRINDON,
PRESIDENT, IN THE CHAIR.

DR. JAMES MOORES BALL read a paper on

Excision of the Right Superior Cervical Ganglion of the Sympathetic for Glaucoma, With Report of Case.*

DISCUSSION.

DR. RENAUD reviewed in detail the history of glaucoma and the various steps taken in its treatment from the date of its recognition up to the present time. Those afflicted are usually in middle life. In a series of 167 cases the patients were between 40 and 60 years. In women it is found that the acute form is more prevalent, while in men septic glaucoma, so-called, is more prevalent. As to race, the negroes are very prone to the disease. Glaucomas are divided into primary and secondary. With regard to differential diagnosis, we find most difficulty in distinguishing acute glaucoma and acute iritis. The points of differential diagnosis are that in iritis we have at the beginning a contracted pupil, whereas in glaucoma it is always dilated. Then, whenever iritis is present we never have an anesthetic condition of the cornea; in glaucoma we do. In iritis there is normal pressure; in glaucoma increased tension. There are three conditions of differential diagnosis with the ophthalmoscope. In the first place we have physiologic choked disc; secondly, the shallow cupping due to atrophy; thirdly, in glaucoma the whole area of the disc is involved. When we see this very pronounced physiologic cupping we know that a case of glaucoma exists—a diagnostic point par excellence. Now as to treatment; MacKenzie recommended the performing of paracentesis in both cornea and sclera. Graefe shortly afterwards brought forward the greatest of all operations of the present time—iridectomy. Neis recommended cutting down into the junction of the attached iris at the periphery. Sullans brought forward the anterior sclerotomy. It is claimed that in cases where iridectomy has been performed and proved unsuccessful, there have been good results from this operation. In the 80s Raiden brought forward an operation for the relief of pain in which he claimed to get a reduction of tension. The operation was a stretching of a branch of the fifth. In case of absolute glaucoma with loss of vision and great pain, posterior sclerotomy has been the operation advised by a large number of operators. It has been advised also where the sight is not destroyed, and, it is claimed, with good result. Some other operations have been brought forward from time to time, all of which have been discredited. Iridectomy and sclerotomy are at this time considered the most reliable op-

erations. In 1897 Jonnesco came out with the report of the removal of the superior cervical ganglion and a report of eight cases with very good results. This was followed shortly after by a report of Aberdeen, in which he reported a case of acute hemorrhagic glaucoma of the very acute and intense type, where he had relieved the tension and pain at once, and claimed that he restored a very fair amount of vision in the eye. To-day that operation stands pre-eminently as the best, judging from statistics. It shows a tendency to return to the original theory of vasomotor innervation, on account of the connection of the sympathetic with the eye through the ganglion and choroid plexus.

DR. BARTLETT: I will divide what I have to say into three parts—the history of surgical procedure in general, the objects to be attained by these various operations described, and the results of the operations that have been performed to date. The surgery of the cervical sympathetic has its inception with Alexander, of Edinburg. He was the first to resect the superior ganglion on both sides, doing it for epilepsy. To Jonnesco we owe the credit in 1896 of having operated for exophthalmic goitre. In this operation he resected both the superior and middle ganglia on both sides. To Jonnesco also belongs the credit of having in 1896 first done a double bilateral complete resection of the cervical sympathetic ganglion. A Polish surgeon described in 1893, according to his own report in the Polish language, some such operation on the cadaver, and suggested a complete bilateral excision of the cervical sympathetic for exophthalmic goitre, but the operation was not performed until done by Jonnesco in 1896. Furthermore, he was the first to operate upon glaucoma in any such way, resecting, as in the case just cited, the superior sympathetic ganglion where the disease was unilateral. He did this first in 1897. Now as to the objects to be attained by these operations and the extent of the operation in each case. For epilepsy, Prof. Jonnesco maintains that it is absolutely essential that all three ganglia on both sides be excised, for, if we wish to bring about changes in the cervical cortex, we must of course destroy, or at least transform, the blood supply of the cortex, and this can only be done by destroying or at least deranging the carotid and vertebral plexuses which command the blood supply to the brain. The supposition is that epilepsy is due to a toxic influence on the cortical cells. He takes it for granted that by changing the blood supply to the cerebral cortex, by changing an anemia to a hyperemia, the cause is removed. As to secondary epilepsy, he maintains that the cure results when means of transmission are destroyed. In considering exophthalmic goitre, Prof. Jonnesco resects the three ganglia. He does this not because he wishes to superinduce a change, but because it is easier than taking out the other two. The superior ganglion gives off all of the sympathetic bundles which go to the eye with

*See page 141, this number.

the exception of those from the trigeminus. Since they bring about permanent changes in the eye and orbit it is necessary to disconnect the nerves mentioned from the superior ganglion. The inferior gives off the vaso-dilator nerves to the thyroid gland. It is supposed by most anatomists to give off the excitatory branches to the thyroid itself, and it is known to give off the cardio-accelerator branches. So it is plain enough that we must remove both upper and lower ganglia to bring about the changes in the eye, in the thyroid vessels and secretions, and in the heart. The middle ganglia is taken out because it makes the operation easier. In regard to glaucoma it is in view of the nature of the anatomic changes that it is only necessary to take away the superior ganglion. This is clear because the only bundles which go to the eye come from the superior ganglion. These changes are several. In the first place a tonic vaso-contraction in the eye is brought about by the removal of those ganglia. The tension in the intra-ocular and intra-orbital vessels is diminished, while the extravasation is lessened. The secretion of aqueous humor is to a certain extent inhibited. The ciliary muscle of the iris at least is paralyzed, permitting aqueous humor to escape from the eyeball. The fourth point, and one that Jonnesco considers of first importance, is, that through the destruction of the superior ganglion the inhibition of influences which formerly passed to the non-striated muscles of the coat of the eyeball are prevented, thus allowing a facility of action of these muscles which had become contracted in a tonic manner; they now become flaccid and the circulation of the choroid is re-established.

Jonnesco has operated in 45 cases of epilepsy of the different varieties, traumatic, secondary, and visceral. In the idiopathic cases he has had absolutely no success. However, of these 45 cases there were 55 per cent. of complete cures, his observation of the cases lasting from four months to two years. In 28 per cent. of the cases there was some improvement, varying in degree. In the remainder there was absolutely no influence.

In exophthalmic goitre the results were even better. He operated in ten such cases. In six fresh cases there were complete recoveries. The remainder of the cases were considerably improved, and none of the ten cases were unimproved. In glaucoma the results were still more encouraging. He operated on eight cases with a complete cure or improvement in each case.

DR. BALL thereupon presented the patient who had been operated.

DR. FUNKHOUSER: I would like to hear from Dr. Pollak, who has had a large experience with Hancock's operation.

DR. POLLAK: I unfortunately came in too late to hear Dr. Ball's paper, and I have never seen the operation which he performed done. In regard to Han-

cock's operation, I will say that I began performing it years ago. I have done the operation eighty-four times without a bad result. The reason why there is not so much heard of Hancock's operation and some others is because he is a very modest man. I advise you all to try this method and you will never try any other.

DR. SAXL: It must be remarked that one case will not establish such an operation as this, and the number of cases so far reported is small. Furthermore, the operation cannot be done by everybody, nor can it be done everywhere. Then, as to whether or not the operation is a success remains to be demonstrated, because only a comparatively short time has elapsed since the first operation was done.

DR. HILSCHER: I do not think the few cases so far reported are convincing as to the success of the operation. So far as this case is concerned, it looks as though there is going to be a good result, although it seems that there is considerable tension there yet. We see these cases have exacerbations and then subside frequently even without treatment. I have watched a number of such cases which seemed to get well without treatment.

DR. KIEFFER: I would like to ask the operator if there have been any examinations of the urine to determine the presence of sugar in these cases. I would also like to ask Dr. Ball if he does not think it would have been just as well, as far as the case of glaucoma is concerned, to resect a portion of the trunk of the nerve a short distance above the lower cervical ganglion.

DR. BALL: In regard to the question propounded by Dr. Kieffer, I will refer him to Gerrish's anatomy. I think that a removal of a part of the trunk of the sympathetic would not suffice. I do not for a moment pretend to draw any deductions from this one case, and when I say that I believe that this operation is a valuable one, it is not a deduction from my case, but from the reports that come to us from Europe. There is no question as to the value of this operation if one can believe the literature. In absolute glaucoma we do not expect to restore vision if the condition of the optic nerve is such that it is impossible to restore vision, but these patients come to us suffering intense pain and want relief. We can make a sclerotomy or iridectomy, and if these operations fail to relieve the pain we can remove the eyeball, which will relieve it, but such a proceeding is a great mutilation, and if by the excision of this ganglion we can relieve the pain permanently we have certainly accomplished a great deal. This patient had been suffering constantly for two months before the operation. Since the operation she has slept every night without medicine. One gentleman said something about bringing this matter to the attention of the general practitioner. I think the general practitioners ought to know it and of the

good results from it in exophthalmic goitre, glaucoma, and epilepsy. Two of the gentlemen refer to the short time that has elapsed since the first operation was done. Well it is two years since the first was done, and while that is not very long it gives great promise at least. Now I will say that I understand that Jonnesco has been in the habit of operating by splitting the sterno-mastoid muscle and operating through it. It seems to me better to go behind the sterno-mastoid. I know it might be better to have waited several years before reporting this case, but my object in reporting it now is a purely selfish one: I wish priority, because I understand this operation has not been done in this country before for glaucoma. Dr. Karl Becker, of Chicago, has recently reported three cases of epilepsy where he operated in this way, but I know of none for glaucoma so far in this country.

THE medical practitioners of China are filled with superstitious notions, and Chinese medicine to-day is largely an exorcising of evil spirits, though material remedies play something of a rôle in the healing of the sick. In midwifery superstition is especially rampant, and in difficult labors the priest is often more in demand than medical assistance. According to T. C. M., in the *Cincinnati Lancet-Clinic*, these evil spirits are gotten rid of by placing candles on a table, and odorous spices are burned with small pieces of paper made in imitation of silver money; on a table are placed three cups of wine and a plate containing three varieties of grain. The priest then commences a performance by reciting between his teeth some prayers, accompanied by some well-timed blows upon the table. After a half hour of these exercises the priest gives the husband of the woman two or three pieces of paper two or three inches wide and two or three feet long. One piece is pasted before the door of the chamber in which the woman reclines; another is pasted on the front of the house and a third is burned to ashes and swallowed with tea by the parturient. They all await the effect of the charms' workings. Sometimes they wait so long that the life of the woman is in danger; then resort is had to a performance which few parturients can resist. A puppet show is held, in which the deity of maternity presides. This is held before the door of the chamber. From the time of birth the Chinese child is guarded from the influence of air demons. Infantile colic is relieved by a band wound around the waist which contains two pieces of Sapan wood gathered twenty-five years B. C. Smallpox is kept off by a small gourd with two protuberances, which has been gathered the last night of the Chinese year. On the last night of the year, handsome children have their faces covered by horrible looking masks, so that when the smallpox demon passes this way he will not afflict those children, as they are already too ugly.

Current Medical Literature

DERMATOLOGY AND GENITO-URINARY DISEASES.

Cutaneous Electrolysis. — F. J. LEVISEUR.*

When a needle connected with the negative pole of a galvanic battery is thrust into the skin and the current closed, caustic alkali is developed around the needle; electrolysis is not a simple cauterization, but may be compared to a most accurate and equally distributed injection of a caustic solution into the tissues. Electrolytic operations are quite painful, because of the electrolytic action itself; therefore, the current should be closed only after the needle has been introduced into the skin. Freezing the field of operation with methyl-chlorid spray is the only reliable method of establishing local anesthesia. Electrolysis is indicated for the removal of superfluous hair, the destruction of soft warts, hard warts, xanthoma nodules; nevi of various kinds can be readily removed; vascular moles, angioma serpiginosum and angiokeratoma have been successfully treated by this method. In the treatment of lupus erythematosus electrolysis has found a permanent place. In cutaneous affections of more or less malignancy this method should not stand in the way of surgical intervention.

The American Soldier and Venereal Diseases.—

W. H. HAMMOND.† This is a refutation of some of the statements of Mr. Edward Atkinson, who confounds syphilis with venereal diseases under the impression that the two are correlative terms. From this confusion he draws the inference that they are all capable of contaminating the blood of the person affected and of transmitting infection to progeny from generation to generation. As to the American troops in the Philippines, we have as yet no exact or extensive data in their relations to venereal diseases; the reports that have been received make no reference to venereal disease as being especially prevalent or virulent. All the information that can be obtained shows that our troops are not suffering to a greater extent than the troops stationed in this country. While venereal diseases are said to be widespread in the Philippines, they are easily cured. The moist climate, accompanied as it is by high temperature, is calculated to eliminate the syphilitic poison from the system in a manner similar to that exercised by the Hot Springs of Arkansas.

Acute Gonorrhea; Its Prevention and Cure.—

T. G. YOUNG.‡ Prevention rests largely upon the shoulders of the medical profession. Our efforts and measures to this end should be increased and improved. Patients should be instructed of the great danger to the health of their future wives, should they contract

*N. Y. Med. Rec. August 19, 1899.

†N. Y. Med. Jour., August 5, 1899.

‡Jour. Cutan. and G. U. Diseases, August, 1899.

gonorrhea. The plan of treatment successfully practiced is a modification of the method introduced by Janet. The urethra is irrigated with a solution of potassium-permanganate, 1-4000, at first twice a day, then once a day, according to the demands of the case, beginning with a temperature of 110° F. and gradually increasing to 120°. The patient, of course, urinates first. The irrigation is carried out by means of a percolator, holding one quart and placed five feet above the level of the penis; the irrigator consists of a blunt-ended nozzle. If the posterior urethra is involved, half of the solution is used to wash out the anterior urethra and the rest for the posterior. If the fluid does not readily flow into the bladder, the anterior urethra should be thoroughly cleansed, and with a hand syringe, holding four ounces, the bladder is filled from the meatus without the use of a catheter. After each irrigation, with the patient on his back, either a 10 per cent. solution of argonin or a 2 per cent. solution of protargol is injected and held in the urethra for ten minutes, then the penis is bandaged so that the solution is retained till the patient urinates.

The solutions should never be used by the patient himself. The irrigations are continued a few days after the disappearance of the gonorrhea, when the patient is requested to drink beer and report in one week. If they are still absent, the patient is instructed to pass the morning urine in sterilized tubes; either a culture is made or else the eye of a guinea-pig inoculated with it. If these tests show negative results, and the seminal vesicles and prostate are normal, the patient may be advised to marry with safety. The length of time necessary to obtain this result ranges from one week to one year, depending on the progress the disease has made before the patient presents himself for treatment.

Facial Eruptions Due to Intranasal Disease.

—C. SEILER,* after considering the effect that disturbances in the capillary circulation of the face have in bringing about facial eruptions, believes that ever since the introduction of cocaine as a local anesthetic into nasal surgery, these facial eruptions have become much more frequent. In a large number of cases the pressure of cotton plugs and the contraction produced by the cocaine of the capillaries of the nasal mucous membrane will excite a corresponding hyperemia of the capillaries of the facial integument. He has found that acne rosacea is more commonly observed in connection with atrophic forms of nasal catarrh, and is not nearly so frequent in the hypertrophic variety of the disease as acne punctata.

GYNECOLOGY AND OBSTETRICS.

Uterine Fibroids.—T. FITZGIBBON† discusses the pathology, etiology, symptoms, diagnosis, prognosis, and treatment of fibroid tumors of the uterus. They

are classified from their location as subserous, interstitial, and submucous. Nothing is known of their direct causation. The chief symptom is hemorrhage, which is, however, rarely present in the subserous variety. Pain, suppression of urine from pressure on the uterus, local peritonitis, menorrhagia, metrorrhagia are among the frequent symptoms. The condition must be differentiated from pregnancy, retained menses, flexions, malignant disease, subinvolution, inflammatory exudates. Treatment is non-surgical and surgical. Under the former we have medication, manipulation, intra-uterine tampons, styptics and electrolysis. Surgical treatment may be palliative, vaginal, and abdominal operations, depending upon the existing conditions in each case.

The Preventive Treatment of Puerperal Eclampsia.—MORRIS* gives the following rule for the preventive treatment of eclampsia: A careful systematic study of the patient's general condition, to determine where the toxemia is most apparent, whether the brunt of its ill effects is borne by the central or peripheral nervous system, the circulation, the gastro-intestinal, the hepatic, or urinary functions. Repeated examinations of the urine must be made. Hygienic and medicinal treatment must be faithfully followed. If, after observing the progress of the case over the period of a week or two, it is found to grow steadily worse, the only safe course is to terminate the pregnancy.

Conservative Gynecology.—S. C. GORDON† gives his conclusions upon the subject of myomectomy based upon ninety cases, with four deaths, as follows: 1. That myomectomy is attended by a mortality as large as hysterectomy. 2. That fibroids may exist where large ones have been removed, and develop more rapidly after such removal, demanding a second abdominal section. That this condition is one of frequent occurrence in cases of small growth. 3. That in all operable cases, in women who have passed the child-bearing age, hysterectomy is by far more conservative of health than myomectomy. 4. That only in comparatively young women is the gynecologist justified in doing a myomectomy when it is found necessary to make an abdominal section. 5. That conservative gynecology demands saving health rather than diseased and useless organs.

Concealed Menstruation.—A. BROTHERS‡ reports a case in which there was a history of five recurring menstrual cycles at regular four-weekly intervals without the appearance of a trace of menstrual blood. The uterus was antiflexed and pushed forward by a cystic tumor in Douglas's cul-de-sac, which on operation was found to contain six or eight ounces of dark,

*The American Gynecological and Obstetrical Journal, July, 1899.

†Phila. Med. Jour., August 19, 1899.

‡N. Y. Med. Rec., August 19, 1899.

*N. Y. Med. Rec., August 17, 1899.

†Jour. Amer. Med. Assn., August 19, 1899.

tarry unclotted blood. A second tumor was found higher up on the right side containing about half pint of the same tarry liquid. Both specimens were separated from the adhesions and removed. They consisted of ovarian sacs in which the parenchyma is entirely absent. Each communicated by an artificial opening with the corresponding Fallopian tube. The openings at the fimbriated extremity were completely obliterated. The case was regarded as one of primary menstruation into the ovaries, that it was a rare case of concealed (vicarious?) menstruation.

The Use of Parotid Gland Extract in the Treatment of Ovarian Diseases.—SHOBER* cites twenty cases in which he employed the parotid gland extract and observed the following effects: 1. It has seemed to relieve the pains of dysmenorrhea in all cases, without regard to alleged causes and present condition, to a greater extent than any of the so-called uterine sedatives. 2. It relieves those dull, aching pains referred to the back and ovarian regions, usually designated by those familiar, though vague and unsatisfactory, terms, "reflex pains," "neurosis," "ovarian neuralgia," etc. 3. Menstruation, when deranged, becomes more regular as to periodicity and less in amount and shorter duration. 4. During its exhibition pelvic exudate seems to soften and become absorbed more rapidly under abdomino-pelvic massage. 5. The general health, strength, appetite, and spirits, seem also to improve under its use, and those dull headaches, which constitute such a persistent and annoying symptom in these cases, are almost invariably relieved, and in some disappear entirely. 6. The only counter-indication that has thus far been met with in its use, has been in cases of artificial climacteric, in which cases the flashes of heat and cold were distinctly made more frequent and severe.

How Far is Retroversion of the Uterus Responsible for Some of the Functional Neuroses.—M. GARDNER.† While in some cases retroversion doubtless aggravates neuroses already existing, it is not the primary cause of nervous unbalance found in so many ungoverned, selfish, self-willed hysteric women. From the histories given, the loss of control over the production of nerve power and the exhaustion of nerve centers have been due to causes independent of displacement of the uterus. In some patients no retroversion is found; in others, correction of the position of the uterus resulted in improvement in health, but the habit of life and character were fixed and the patients sought for other reasons for nervous feelings, meanwhile allowing their minds to dwell upon the pelvic disturbance which had been relieved. In other cases, where none of the symptoms given pointed to

retroversion, the uterus was found badly retroverted. He concludes with Dercum's statements: "There is no necessary relation between neurasthenia and pelvic disease." "There is no relation between pelvic disease and hysteria, even where the two affections co-exist in the same case."

Postpuerperal Sepsis.—J. B. DEEVER.* In order to arrive at the best means of disposing of the sepsis and the prevention of an extension of the infection, the source and cause of the infection must be considered. Destructive changes consequent on puerperal sepsis will at times become circumscribed and give the surgeon the opportunity of both saving life and performing an ideal operation. From an anatomic standpoint there are three forms of puerperal sepsis; endometritial, metritial, and parametritial, of which the metritial is the most fatal form. Sepsis following labor at term manifests itself in two ways: (1) By infection of the external genitalia, the result of bruises, tears, etc., and if recognized early and free drainage is established, few lives will be lost. (2) By infection of the internal genitalia manifesting itself in the shape of septic endometritis, phlebitis of the uterine sinuses and of the veins of the broad ligament, septic inflammation of the Fallopian tube, and, through the fimbriated extremities, septic peritonitis. Very radical operation, except in cases of septic endometritis, is usually attended by disastrous results.

HYGIENE AND BACTERIOLOGY.

Investigation on Acid-Retaining Bacteria.—

A. PETTERSSON† reports the result of his observation on bacteria that are not decolorized by an acid. It was formerly thought that all bacteria, with the exception of the bacillus of tuberculosis, lepra, and smegma bacillus, would be decolorized by an acid. Recent investigation has proven the falsity of this view. Many bacterial forms which were evidently acid-retaining were found in butter, grass, and in other places. It is to be decided whether all these bacteria are only varieties of the tubercle bacilli or separate and distinct organisms. Morphologically all these forms bear a close resemblance to the tubercle bacillus. Probably there are at present three varieties of acid-retaining bacteria.

Separation of Bacteria from Milk by Natural

Process.—If milk is allowed to stand and the cream rises it is found that about 99 per cent. of all bacteria are removed from the milk and are carried up into the cream. R. G. FREEMAN‡ explains this by what he calls "inverse precipitation," and thinks that the fat globules carry the bacteria up with them. In a preliminary report he states that the cream contains 300 times as many bacteria as the milk after it rises. The

*The American Gynecological and Obstetrical Journal, July, 1899.

†N. Y. Med. Jour., August 19, 1899.

*Jour. Amer. Med. Assn., August 19, 1899.

†Berl. klin. Woch., June 26, 1899.

‡Archives of Pediatrics, August, 1899.

practical importance of the point is obvious. The cream is allowed to rise, it is removed and pasteurized or sterilized, and afterwards mixed again with the comparatively germ-free raw milk. In this way pasteurization or sterilization of the milk as a whole can be done away with. [Author has observed that centrifuged milk is not as free from bacteria as that separated by the natural process.]

The Etiology of Yellow Fever.—The following are the conclusions of the MARINE HOSPITAL COMMISSION:* 1. The micro-organism discovered by Prof. Sanarelli, and by him named "bacillus icteroides," is the cause of yellow fever. 2. Yellow fever is naturally infectious to certain animals, the degree ranging with the species; in some rodents local infection is very quickly followed by blood-infection; and while in dogs and rabbits there is no evidence of this subsequent invasion of the blood, monkeys react to this infection the same as man. 3. Infection takes place by way of the respiratory tract, the primary colonization in this tract giving rise to the earlier manifestations of the disease. 4. In many cases of the disease, probably a majority, the primary infection in the lungs is followed by a "secondary infection" or a secondary colonization of this organism in the blood of the patient. This secondary infection may be followed by the co-instantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life. 5. There is no evidence to support the theory advanced by Professor Sanarelli that this disease is primarily a septicemia, inasmuch as cases do occur in which the bacillus icteroides cannot be found in the blood or organs in which it might be deposited therefrom. 6. There exists no causal relationship between the bacillus "X" of Sternberg and this highly infectious disease; and the bacillus "X" is frequently found in the intestinal contents of normal animals and of man, as well as in the urine and the bronchial secretion. 7. So far as the Commission is aware, the bacillus icteroides has never been found in any body other than one infected with yellow fever; and whatever may be the cultural similarities between this and other micro-organisms, it is characterized by a specificity which is distinctive. 8. The bacillus icteroides is very susceptible to the influences injurious to bacterial life; and its ready control by the processes of disinfection, chemical and mechanical, is assured. 9. The bacillus produces *in vitro*, as well as *in vita*, a toxin of the most marked potency; and, from our present knowledge, there exists a reasonable possibility of the ultimate production of an antiserum more potent than that of Professor Sanarelli.

*Phila. Med. Jour., August 19, 1899.

Specific Cause of Epidemic Cerebro-Spinal Meningitis.—After a review of the literature of the subject, STADELMANN* concludes that it has not been definitely proven that the meningococcus intracellularis of Weichselbaum is the specific germ. In undoubted cases the pneumococcus of Fraenkel has been found, either alone or with the meningococcus. Other germs, staphylo- and streptococci, have been found. Author reports a case where, from fluid obtained by lumbar puncture, he was able to grow a rod-like bacillus not hitherto described. Furthermore, the meningococcus has been found in cases evidently not of the epidemic variety. He is not even willing to admit that what we know as the meningococcus is a distinct variety, but thinks that several groups of germs have been classed together under this name.

Per contra, JAEGER† (who has done a great deal of work on this subject) concludes that the meningococcus is the specific germ; that it is the only germ producing cases of true epidemic cerebro-spinal meningitis.

The Relation of Local Meteorologic Conditions to the Influenza-Epidemic in Philadelphia, Winter of 1898-1899.—H. S. ANDERS,‡ from personal observations during the development and height of the late epidemic, concludes that: 1. during November and December, there were several volleys of attacks, as it were, in which influenza suddenly overcame numbers of people for three or four days, or a week, and then seemed to subside to a degree, to be followed by other exacerbations and remissions of invasion; 2. these attacking periods were invariably preceded by sudden thaws, "thick, ill-smelling" fogs, and relatively warm, moist, and calm weather; 3. they were apparently introduced by, and associated with cold, clear, dry, and windy weather; 4. these changes appeared to be unusually sudden, extreme, frequent, and rapid. The character of the early evening fogs, with their intensely carboniferous odor and suffocative heaviness, were particularly noticed.

INTERNAL MEDICINE.

The Treatment of Forty-Three Cases of Typhoid Fever With No Deaths.—E. C. SENFERT§ shows the results obtained by vigorously following the antiseptic treatment in forty-three consecutive cases. Not one case perished and complications occurred in only one case, a boy of very weak constitution. Stress is laid upon the strict necessity of attention to details in diet and nursing, and upon the fact that no coal tar antiseptic or alcohol was given internally. Systematic cold sponging was begun in each case as soon as the diagnosis was suspected. Equal parts of alcohol and water were used; when the

*Deut. med. Woch., July 20, 1899.

†Ibid.

‡Phila. Med. Jour., August 19, 1899.

§N. Y. Med. Jour., Aug. 12, 1899.

temperature was above 102.5° F. the patient was sponged every two hours; otherwise every three or four hours. Each sponging occupied fifteen minutes. Medicinal treatment consisted in the administration of one-grain doses of calomel every two hours for the first twenty-four hours, whether the attack began with diarrhea or constipation. Later salol, naphthalin and guaiacol carbonate were given, each for one week. The average duration of the fever was twenty-one days. Among the cases were two infants, thirteen and fifteen months old respectively; the former was well in fourteen days, the latter in sixteen days.

A Case of Acute Dilatation of the Stomach.

—T. B. APPEL* reports a case occurring in a patient 17 years old, under treatment for fracture of the femur; he complained of pain across the hips and lumbar region, but otherwise there was nothing abnormal except the injury to the femur. From the tenth day his temperature was normal, but pulse remained rapid. On the thirteenth day after the accident, he complained of severe abdominal pains, vomited dark-green bilious fluid. For the next week there was only obstinate constipation and gradually increasing distension of the abdomen; the vomiting then recurred and grew persistent; high enemas did not relieve the constipation, and the patient was operated upon for supposed intestinal obstruction. The distension was found to be due to an enormously dilated stomach, with no cause for obstruction present. The stomach was incised and gave vent to gas and greenish fluid. The pylorus and duodenum were examined with negative results. The opening in the stomach was closed, the abdominal cavity flushed with sterile water and the abdomen closed. The patient reacted well, but died the second day, with abdomen distended as before operation. Autopsy revealed only the distended and dilated stomach. The theory is that he received some injury to the great sympathetic abdominal ganglia.

Pneumonia of the Aged.—R. H. BABCOCK.† The form of pneumonia which is fatal to those already enfeebled by senility is due to the pneumococcus and not to an extension of bronchitis. The form of inflammation is lobar rather than lobular, and a failure to clinically distinguish these two forms may readily occur, because the lobar pneumonia is not frank and typical in its manifestations. It is attended with profound exhaustion and debility and in other respects displays a symptomatology not unlike that of the lobular form. Four points in the treatment are emphasized: (1) Large doses of strychnine are required and are well borne. (2) Stimulants, as alcohol in small or moderate doses, and ammonia in frequently repeated doses, are usually beneficial. (3) As little medicine as will meet the indications should

be given, for fear of deranging the stomach and thereby destroying what few chances the patients have at best. (4) Because of the tendency to renal insufficiency, the nourishment should be largely fluid, and nothing is so suitable as milk and properly-prepared beef juice.

Note on a Case of Nervous Eructations Studied by Skiagrams.—A. ABRAMS* gives the results of skiagraphic examination in two patients, one of whom had the eructations. The illuminated area of the stomach in Fraube's space corresponded with the normal dimensions of the stomach in that region, and there was no shadow cast by the spleen. It is evident that if the stomach were in any way implicated in the genesis of eructations, it would be manifest by some slight movement on the part of that organ, especially when decided movements could be provoked voluntarily by irritation of the skin in the epigastric region. The contour of the stomach remained unchanged during loud and continuous eructations; prior to each eructation the diaphragm descended slightly, about one-fifth the distance of its descent in ordinary inspiration. The introduction of a stomach-tube into the esophagus, by interfering with its contractions, caused the eructations to disappear, even with closed mouth. The origin of the belching in this particular patient must be referred to the esophagus.

Guiacol Vapor Baths in the Treatment of Bronchiectases.—PARRY† claims good results from the use of the guiacol vapors bath. The case reported is a woman, 27 years of age. Hypodermic injections of guiacol and strychnine and the constant use of Coyhill's dry inhaler moistened with eucalyptol, chloroform and guiacol proved of very little benefit. The intra-tracheal injections of oil of eucalyptus, castor oil and balsam of Peru were also tried. Upon the use of the vapor bath for five weeks the expectoration was reduced from 25 ounces to 11½ ounces during the bath, and from 20½ ounces to 8 ounces during the remainder of the day. Duration of bath was gradually increased from 10 to 60 minutes. Patient began to regain her weight, breath was almost odorless and expectoration gradually decreased.

Case of Primary Hemorrhagic Effusions Into the Plueræ and Peritoneum.—CHEESMAN and ELY‡ report a most interesting case. Upon first examination of the chest a fluid was detected in the right pleura. This was aspirated, but refilled so rapidly that within six months it was found necessary to aspirate nineteen times. It was then determined to wash the pleural cavity thoroughly and inject a solution of thirty drops of iodine in a quart of sterile water. This was allowed to remain some moments

*Phila. Med. Jour., Aug. 12, 1899.

†Jour. Amer. Med. Assn., August 19, 1899.

*Phila. Med. Jour. Aug. 12, 1899.

†Lancet, July 22, 1899.

‡The Amer. Jour. Med. Science, August, 1899.

and then withdrawn. A pint of Thiersch's fluid was then injected and allowed to remain. This failed to have the desired effect, but a second trial, in which the only change made was the washing with Thiersch's fluid and leaving the iodine solution in the chest cavity, proved very successful. In about three months the left pleura filled and was carried through the same procedure. This ended the trouble in the chest cavity, but to the surprise of all, the abdominal cavity began to be distended. This was tapped from time to time until the cessation of menstruation, since which time the patient has been entirely well.

Acute Diabetes.—H. L. ELSNER* reports a case occurring in a man, 45 years old; previous history was negative. After exposure to rain, during which he became thoroughly wet, the patient complained of dysuria, which was somewhat relieved by continual dribbling. For two days the patient remained quiet; the dribbling continued and on the third day, when seen for the first time, hiccough, somnolence, mental hebetude had developed, with a peculiar sweet odor to the breath. The abdomen was distended by an enormous tumor, which proved to be the distended bladder, from which $2\frac{1}{2}$ vesselfuls of urine was drawn. Its specific gravity was 1015, acid, with a large percentage of sugar. During the next 24 hours over 5 gallons of a 3 per cent. diabetic urine were withdrawn, and on the following day 1 quart was withdrawn every two hours. Within one week from the time of onset the patient died from exhaustion, with symptoms of profound poisoning. The patient had been in perfect health; there were no evidences of pancreatic or other associated diseases.

Acute Alcohol Poisoning in a Child.—M. A. WALKER† reports a case occurring in a boy six years and three months old; the boy drank about three ounces of undiluted whisky; a short time afterward he fell from his chair while at breakfast, and later was put to bed to "sleep it off." Nine hours later, when first seen, the child was completely comatose, pupils widely dilated, unresponsive to light, conjunctivæ insensitive. Pulse 145, small, weak, compressible; respiration 40; skin of head and face cool, slightly moist; trunk and extremities hot and dry; temperature in axilla 103.2° . In spite of all remedial measures, there was slow and continual failure of heart and respiration. A severe clonic convulsion occurred, lasting ten minutes, and then there followed constantly recurring localized spasms of the muscles of the face and extremities, the left side being more affected. Occasional nystagmus was present. Cheyne-Stokes respiration developed, and death from cardiac failure occurred about twenty hours after ingestion of the whisky. Rectal temperature rose to 105.3° just before death.

* Phila. Med. Jour., Aug. 19, 1899.

† N. Y. Med. Jour., August 19, 1899.

The Blood in Pneumonia.—A. STENGEL.* In croupous pneumonia and in broncho-pneumonia there is usually leucocytosis. This varies in degree and in duration. When the disease subsides the leucocytes return to the normal number more or less quickly. The leucocytosis is a characteristic one. The eosinophilous cells are usually greatly reduced in numbers and some have claimed that they are absent. There is an undoubted relationship between the leucocyte count and prognosis, cases in which the number of white cells is normal or subnormal, usually terminating fatally. The toxic substances elaborated by the pneumococcus are chemotactic and attract to the circulation the ameboid polymorphous corpuscles. An additional element is the reaction of the tissues themselves to the irritant influence of toxic agents, else there would probably be leucocytosis in every case. When the systemic condition is bad and the dose of intoxications is overpowering, leucocytosis does not occur.

The Diagnosis of Smallpox.—B. LEE† says that the symptoms which should put the practitioner on his guard are: A prodromic period of more than 24 hours; immediate abatement of prodromic symptoms on the appearance of the eruption; the firm, shot-like sensation conveyed to the finger by the papules; the tending of the eruption to appear on exposed surfaces to a greater extent than on protected surfaces: the appearance of an areola, however slight, around the vesicle; the persistence of the marks left by the falling off of the scabs for a considerable period of time, and the pigmentation of the marks; the appearance of the pustules within the mouth, on the eye, on the palms and soles, is extremely corroborative. Absolutely no weight should be given to the absence of the so-called characteristic "smallpox odor," or to the absence of secondary suppurative fever. In many well-marked cases of smallpox these symptoms have been absent.

Hodgkin's Disease, with Report of Cases.—E. G. WOOD‡ gives brief reports of four cases illustrating the principal features of this disease, two of them affording some evidence in favor of the specific infectious theory which has been advanced. In one of the cases the glands on the right side of the neck were the first to be involved and the enlargement came on after the patient had suffered from a troublesome alveolar abscess in connection with the right lower molar tooth. In another case, the patient, a boy of six years of age, suffered with severe non-suppurating amygdalitis, limited to the left tonsil, which was followed immediately by enlarged glands behind the angle of the jaw, later by involvement of those beneath the sterno-mastoid, axilla, groin, etc. It is

* Jour. Amer. Med. Assn., August 19, 1899.

† Phil. Med. Jour., Aug. 19, 1899.

‡ N. Y. Med. Jour., Aug. 19, 1899.

at times difficult to distinguish this disease from tubercular adenitis; in the latter affection the glands in the anterior triangle of the neck are usually affected, while in Hodgkin's disease those beneath the sternomastoid and in the posterior cervical triangle are first attacked; splenic enlargement and blood-examination usually make the diagnosis clear.

The Use of Quinine in Malarial Hemoglobinuria.

—S. L. J. STEGGALL* reports three cases in which hemoglobinuria came on while the patients were under treatment with quinine, and under further treatment the hemorrhage was stopped and the patients were relieved. The patients had been suffering from malaria for years, and had been in the habit of taking heavy doses of quinine, which, to a great extent, had lost its effect; therefore very large doses were given. The conclusions drawn are: 1. Quinine causes irritability of the kidneys and may cause hemoglobinuria. 2. Malarial attacks in chronic cases with malarial cachexia may cause hemoglobinuria. 3- In these cases quinine has lost much of its specific effect, and large doses must be exhibited. Should there be a periodicity, we must give the quinine before the time of the attack. 4. The action of quinine must be assisted by such drugs as iron and arsenic, and the liver must be acted on well and the effect kept up. He has never been able to cure an attack of hemoglobinuria without getting the liver active; the bilious vomiting in these cases sufficiently indicates the necessity of this.

Typhoid Fever With Death in One Week From Onset; Autopsy Findings.

—W. F. CHENEY.† The patient was an Italian, 25 years old, who could not speak English and who was delirious and could not answer questions put to him in his own language. A diagnosis of labor pneumonia was made for the following reasons: Abruptness of onset, rapid development of early delirium, the appearance of the patient, hyperpyrexia, the pulse-respiration ratio of $2\frac{1}{2}$ to 1, the cough and physical signs, which consisted of dullness over right lung extending up to the fourth rib in the mammary line, with bronchial breathing, numerous dry and fine, moist rales over this area; the abdomen was tympanitic and much distended. No splenic enlargement could be made out, owing to abdominal distension, which could not be relieved. Widal test gave a positive clump-reaction for typhoid; blood count showed a leucocytosis of 17,000. The patient died the following day, after an illness of six days. Anatomic diagnosis upon autopsy was typhoid fever, with broncho-pneumonia, verified by bacteriologic examination. Unusual features were found, as follows: Unusual extent of involvement of the solitary and agminated follicles in the ileum, colon and sigmoid flexure; these were nearly all in the first stage

of swelling and infiltration; nowhere were ulcers found; the liver was entirely hidden behind the free margin of the ribs, extending to the third rib and pushed into this position by the distended intestines; the spleen was greatly enlarged, though during life it could not be found. The value of Widal test in doubtful cases seems exemplified.

The Pneumonia Question.—E. F. WELLS* considers a few of the numerous practical points which seem to be of the greatest present interest. The toxemia of pneumonia is due to the development of pneumococcal toxins and probably antitoxins; to destructive changes in the normal constituents of the blood; to the withdrawal, by the exudate, of important elements; to diminished aeration; to contamination by the excessive waste products of the body in general and of the inflamed lung in particular; and to interference with execution. The hemic changes affect particularly the nervous system. The arterioles and capillaries are relaxed. Every tissue of the body lacks in nourishment, the heart perhaps more markedly than other parts; the soft tissues become loaded with the poisons of their own waste. Herein lies the greatest danger and the chief determining cause of death in pneumonia. The treatment should resolve itself into reasonable prophylaxis, in making the patient comfortable, in preventing excessive formation of toxins, in neutralizing them, in encouraging their elimination, in increasing the resisting power of the system, and in properly managing complications.

A Type of Tropical Fever.—L. L. VON WEDEKIND† describes the type of tropical fever known as calentura. It is of frequent occurrence and will attack the new arrival within a short time unless precautions are taken. The onset is sudden, with or without sensation of chilliness, then a temperature of 102° to 103° , which gradually increases to 104° or 106° . There are general myalgic pains, cephalagia, anorexia, marked asthenia associated with gastric disturbance. With no treatment the case will convalesce within seven days. Quinine has no specific effect; aconite is given after the administration of calomel and salts; the patient remains in bed three or four days, as the asthenia is marked. Calentura is non-malarial and is probably due to exposure to the direct rays of the sun. With the use of a white umbrella, a large, light helmet, loose white cloths, and non-exposure to the sun, there will be no calenthura.

Epidemic Cerebro-Spinal Meningitis.—J. L. HIRSH‡ refers briefly to the reports published regarding the bacteriology of cerebro-spinal meningitis, and reports four cases which came under his observation, in all of which lumbar puncture was performed and the spinal fluids studied bacteriologically. All these

*N. Y. Med. Rec., August 19, 1899.

†Phila. Med. Jour., Aug. 19, 1899.

*Jour. Amer. Med. Assn., August 19, 1899.

†N. Y. Med. Rec., Aug. 10, 1899.

‡N. Y. Med. Jour., Aug. 19, 1899.

cases showed the diplococcus intracellularis meningitidis either in the fluid or on cultures, several by both methods. Lumbar puncture may be of value also in determining subarachnoidal pressure; suppurative and epidemic meningitis invariably shows increased pressure; normal pressure with good heart action contraindicates a meningeal or cerebral affection. As to the therapeutic value of lumbar puncture all do not agree. In one of the cases improvement followed so immediately upon the operation that it seemed due to this procedure. In two of the cases there was at least a temporary improvement following the operation. By relieving abnormal pressure, and probably by getting rid of some of the toxins, the beneficial results can readily be conceived. It is certainly indicated for diagnostic purposes at least.

SURGERY.

Knee-Joint Tuberculosis.—A. F. JONAS* There can be no one uniform method of treatment that will assure a favorable outcome in all cases. Each case must be considered by itself, and general principles must be our guide. Of 55 cases treated, 15 passed from observation; the remaining 40 were kept under control until the local process had come to an end. Of these, 7 came to resection of the joint surfaces, and 2 to amputation; 13 cases yielded partly to medicinal and partly to mechanical means, associated in a number of instances with a joint puncture for evacuation, followed by injection or irrigation, simple incision, compression, ignipuncture, and local applications of various kinds. The seven cases in which resection was done, are fully reported. Early recognition and early treatment in the critical stage of joint tuberculosis cannot be too greatly emphasized. The cases seen early, in which the true nature of the disease is at once appreciated, give a large percentage of recovery by non-operative means, while the chronic, badly managed and neglected cases are suited only to radical operative intervention. Resort to early exploratory incision is advocated, if improvement has not commenced in three or four months; if the joint cavity is free from tubercular infection, no harm can be done. If the primary focus can be found it can be easily removed. If the joint surfaces are destroyed, time is gained by their early removal.

Why Some Severe Cases of Appendicitis End in Recovery Without Operation.—J. H. CARSTENS† saw several cases in which there were peculiarities of the anatomic relation of the appendix, which explains how, in severe cases, rupture into the cecum can easily occur, with prompt and permanent recovery. In one case the point of the appendix for the extent of fully one inch was adherent to the cecum,

beneath the peritoneum. There was no peritoneum between appendix and cecum. Hence if the inflammation took place at the dilated end, the appendix would fill with pus, and finally rupture into the cecum, following the direction of least resistance. In another case the appendix was lying flat along the cecum, over the whole extent, and had no mesentery whatever. It was two inches and a half long, lying between the muscular coat and peritoneum of the cecum. The peritoneum had to be split up and pushed back on each side, so that the appendix could be easily enucleated and removed without any peritoneal covering. The small amount of pus escaping into the cecum through a rupture will become mixed with fecal matter, and so escape observation when it is passed.

Extirpation of a Splenic Tumor Which Had Twisted Upon Its Axis.—The patient so treated by Dr. SCHWARZ* was a girl of 24. She had a large painful and sensitive tumor in the left hypochondrium. The girl was very anemic, and had a temperature of 38° C. During a twenty-four-days observation the tumor increased to three times its original size, and on account of the patient's intolerable suffering an operation had to be undertaken. Median section was made, a pedicle easily found, and the immense spleen removed. The wound healed by first intention, and from the moment of operation the anemia began to disappear. In four weeks the patient was apparently as well as those in possession of a spleen, having gained twenty-one pounds in weight. The tumor mass had twisted three full turns upon its axis.

On the Rôle of Primary and Secondary Osteoplastic Surgery in the Treatment of Complicated or Compound Fractures of the Extremities.—T. H. MANLEY† discusses the subject in the light of modern advances. The following questions and conditions are elaborated: Conditions essential for success in primary osteoplastic procedures after serious fractures of the extremities; on the period when it is the safest and most expedient to institute a critical examination of the parts, with a view of deciding on the line of treatment to be adopted; secondary osteoplasty after reparative processes are completed; conditions which lead up to the necessity of secondary osteoplasty; open and closed fractures, or the complicated, simple and compound fractures; on the question of converting a simple into a compound fracture, for purposes of diagnosis or treatment; the scope of secondary osteoplasty in defective joints or deformed limbs after fracture; osteoclasia, and osteotomy with osteoclasia, in angular deformity of the thigh, with shortening following more or less imperfect union after fracture.

*Jour. Am. M. A., Aug. 12, 1899,

†N. Y. Med. Jour., Aug. 12, 1899.

*Centralblatt f. Gynäkologie, Aug. 5, 1899.

†N. Y. Med. Rec., Aug. 19, 1899.

Abdominal Injuries Due to Blunt Force.—R. S. FOWLER* reports two cases; in one, rupture of the mesentery of the ileum resulted, and in the second rupture of the small intestine was found, upon operation. The vulnerating force may result in injury to the abdominal wall alone, to the intra-abdominal viscera alone, or in injury to both. The symptoms first present are pain, vomiting, distension; rigidity is of value only when it develops later; temperature and pulse are of extreme importance. Immediately after severe injury it is impossible to arrive at a positive diagnosis, and the cases should be closely watched; a few hours usually suffice to establish a diagnosis, which is then made not only on the presence of certain symptoms, but upon their persistency and steady increase. If sufficient grounds are present, exploratory laparotomy should be performed in all cases, except in those whose condition is so desperate that anesthesia means certain death.

Cholecystectomy.—C. CUSHING† assumes, for the purpose of his discussion of this operation, that the gall-bladder is not necessary to the health or well-being of the individual, for many cases are now on record where the gall-bladder has been removed and the patients remain in perfect health. If the gall-bladder is so seriously diseased as to warrant a surgical operation for its relief, it is better practice to remove it *in toto* than to leave it as a place for the further accumulation of gall-stones, or as a point for the setting up of new inflammations. Like the appendix, it is a *cul-de-sac*, and having been once diseased, if the patient lives, is likely to become diseased again, unless removed. If for any reason the common duct, or the hepatic duct, below the junction of the cystic duct, becomes strictured, or otherwise obstructed, so as to prevent the passage of the bile into the intestines, it might be possible to attach the gall-bladder to the pylorus, and thus utilize the cystic duct and gall-bladder to carry the bile into the intestine. In this condition the gall-bladder should not be removed.

A Case of Tetanus Treated by Intra-Cerebral Injection of Anti-Tetanic Serum.—GIMLETTE‡ reports a case of tetanus which readily yielded to the intra-cerebral injection of the anti-tetanic serum. An imaginary line from the root of the nose to the occipital protuberance was taken, another from one external auditory opening to the other, and a third from the point of intersection of these to the outer angle of the left orbit. At the center of this third line an incision half an inch long was made down to the bone. The skull was then opened with a drill which being provided with a stop could penetrate bone and dura mater only. The injections of 2.5 cc.

*N. Y. Med. Jour., August 19, 1899.

†Jour. Am. M. A., July 29, 1899.

‡The Lancet, July 8, 1899.

of concentrated serum were made into brain substance and the wound then closed. The operation was then repeated in a precisely similar manner on the right side, and a sub-cutaneous injection of the ordinary anti-tetanic serum was given under the skin of the abdomen in the right flank. The sub-cutaneous injections were given every day for ten days. The diagnosis of tetanus was confirmed by the isolation of the bacillus from cultivations from the original wound scraping.

Recent Bacteriologic Research; Its Effect on Modern Surgery.—J. C. CLAUSEN.* In the prevention of infection and the securing of ideal aseptic healing of wounds inflicted by the surgeon's knife, bacteriologic experimentation has been of great service. Still not infrequently we see a stitch-abscess, an escaping ligature or a local suppuration. Of the four sources of infection, only one has been satisfactorily eliminated by boiling or steam sterilization; that is instruments, ligatures, sponges, dressing materials, etc., are no longer to be feared. The remaining three sources, the air, the surgeon's hands and the skin of the patient are still with us. A much more fruitful source of infection than dry dust from the air is the bacteria thrown into the wound enclosed in the minute droplets of moisture from the mouths of the operator and assistants. It has been shown that it is impossible to render the hands sterile by any of the methods known. At present many of the best surgeons use operating gloves, changed frequently during the operation. Small pieces of disinfected skin, just before operations, were placed in culture-media and absence of growth was found in 30 per cent. The deeper layers most frequently contained microbes, as did also hair-follicles and sebaceous glands.

An Abdominal-Sacral Method for the Removal of Rectal Carcinoma.—H. O. SOMMER† describes this operation as performed by Kraske in Freiburg. This method is proposed for nearly all cases of rectal carcinoma and certainly for those in which the tumor is high above the anus. This method can be successfully employed in cases complicated by strong adhesions to or involvement with the bladder, uterus, sacrum or promontory. The ease of access to the actual field of operation is so much increased that the general depression is possibly less than would result from an attempt to work through the inadequate posterior entrance alone. The part of the intestinal tract which comes into consideration is not only rendered more approachable, but can be so far drawn out of the sacral wound, and the abdominal cavity so well shut off with gauze tampons, that the removal of the tumor and resection of the rectum can be accomplished extraneous to the patient and with

*Jour. Am. Med. Assn., August 12, 1899.

†N. Y. Med. Rec., Aug. 12, 1899.

a minimum danger of infection. The possibility of delaying the opening of the bowel until it has been isolated is almost the chief advantage of the new method. It also permits a more radical removal and greater facility in ligating important blood vessels.

Femoral Artery and Vein; Their Destruction Without Loss of Leg.—B. M. RICKETTS.* Amputation of the leg is not always necessary when the lumen of the femoral artery or vein, or both, is suddenly or slowly occluded by injury or otherwise. It is better to ligate the femoral artery or vein, or both, and give the patient the benefit of a doubt, than to amputate immediately. It is impossible to determine the circulation of the thigh or any given part of the human body without a complete dissection, which can only be done post-mortem. Ligating the femoral artery, or vein, or both, in chronic pathologic conditions of the thigh, seems less likely to result in death or gangrene than when the ligature is applied in case of accidents in a normal thigh. It cannot be determined what role, if any, the six varieties of the femoral artery have played in any case in which the femoral artery or vein, or both, have been ligated, as no record of dissection seems to have been made. While end-to-end anastomosis may be accomplished, complete occlusion sooner or later takes place. Suturing and the application of ligatures to arteries and veins which have been lacerated have no advantage over complete immediate occlusion by ligature. Gangrene is possibly due to septic infection and not merely to the occlusion of the femoral artery or vein, or both, unless the vessels for collateral circulation are absent. The preservation of the leg does not seem to depend upon the ligating of the femoral artery or vein, or both, at any particular point.

Localized Tuberculosis of the Intestines, with Report of Seven Operated Cases.—W. J. MAYO† reviews briefly the reports heretofore published on the subject, and adds an account of seven cases occurring in his own practice, as follows: Case I. Localized tuberculosis of ileum; separation of adherent intestinal coils; secondary operation for fecal fistula; recovery. Case II. Tuberculous ulceration of ileum causing obstruction; intestinal resection; recovery. Case III. Localized tuberculosis of sigmoid and tubo-ovarian disease; secondary involvement of ileum and bladder; operation; death. Case IV. Tuberculosis of cecum and appendix; operation; improvement; seven months later obstruction of the bowels; ileocolostomy; recovery. Case V. Tuberculosis of cecum and ascending colon; formation of tuberculous abscess; operation; improvement. Case VI. Tuberculosis of sigmoid, causing stricture; operation for obstruction; recovery. Case VII. Tuberculosis of cecum and appendix; appendectomy improvement.

*Jour. Am. Med. Assn., August 12, 1899.

†N. Y. Med. Jour., August 19, 1899.

The Treatment of Solid and Liquid Tumors of the Mesentery.—The exhaustive and lengthy article by P. BEGOUIN* is the result of surgical as well as experimental work, to say nothing of the literature reviewed. Solid tumors are here much less frequent than those of cystic variety. No bad effect followed the puncture of 54 growths. Of 16 cysts treated by aspiration, 7 were cured. Extirpation was practiced on 29 out of 36 solid tumors, with a resulting mortality of 52 per cent.—in lipoma, fibroma, sarcoma and carcinoma were the formations so treated. The chief dangers to be considered are injury to the solar plexus, ureters and great vessels lying near the spinal column—a complicating feature of no slight consequence in complete removal of all growths is intestinal resection on account of injury to mesenteric vessels.

Some Radical Changes in the After-Treatment of Celiotomy Cases.—E. RIES† reports a number of changes by which patients have been freed from many irksome and disagreeable features of the after-treatment as usually carried out; and who have recovered more rapidly and more completely than heretofore. In some cases of vaginal celiotomy patients are allowed to get up in 24 to 48 hours, and to leave the hospital in 4 to 6 days after operation. The bowels are moved by simple enema on the first and second day after operation, if they do not move alone; before operation the customary efforts toward getting the bowels as empty as possible are omitted. Meat, bread and vegetables are given 24 hours after operation if there are no symptoms of peritonitis; this diet was not prevented by the presence of extensive adhesion found at the time of operation. Patients leave the hospital within ten days after operation, in good physical condition. A similar regime is followed in cases of ventral celiotomy. Some patients sit up as early as three days after operation, others on the sixth to eighth day after the removal of the stitches. All patients are permitted to turn over and move about in bed as soon and as often as they want to. The consequence is prevention of muscular atrophy, rapid recovery of strength, and discharge from the hospital about 12 days after operation. The intestinal canal is managed as in vaginal celiotomy; intestinal operations make no exception. Patients with bowel sutures or mechanical appliances in their bowels are permitted solid food after the first bowel movement. Patients do not wear a binder of any shape or kind. Drainage is never used in order to close the abdominal wound completely; packing has been used, and in those cases where it is brought out through the abdominal wound hernia is to be expected. These patients are kept in bed longer, since prolapse of the intestines might take place.

*Revue de Chirurgie, March and July, 1898, February and March, 1899.

†Jour. Am. Med. Assn., August 26, 1899.

Practical Therapeutics.

Therapeutic Uses of Cacodylic Acid.—DANLOS* reports that he has used cacodylic acid successfully in the following diseases: psoriasis, acne, lichen planus, lupus erythematosus, tuberculosis of the skin, tubercular adenitis, sarcoma of the skin, glandular lymphosarcoma. When given hypodermically, and this is the method that he recommends, he gives up to 40 centigrammes in twenty-four hours. By the mouth, from 40 to 60 c.c. to male and from 30 to 40 c.c. to female patients. In these doses the medicine can be taken for a long time. The disadvantages of this medication are its disagreeable odor and the colic and offensive diarrhea that it produces at times.

A Mechanic Laxative Taken by the Mouth.—H. L. UPSON† has found that the best remedial agent of the mechanic class for cases of constipation is the product known as white or liquid petrolatum, given by mouth in doses of two to three ounces. It has the advantage over olive oil and cotton-seed oil that it does not become rancid in the body or out of it. It is non-irritant, does not distend the bowel, and it diminishes flatulence. It is readily taken and is well borne by infants.

Cacodylic Acid and Its Sodium Salt—Cacodylic acid is an organic compound of arsenic, supposedly non-toxic, and offering a means of safely introducing large quantities of arsenic into the system. It has been used in skin affections, and in the constitutional diatheses where arsenic is indicated. GAUTIER‡ has been using the sodium cacodylate in tuberculosis, hypodermic injections. His formula is as follows:

Rx	Acid cacodyl.....	5.0.
	Natr. carb.....	q. s. ad. saturat.
	Cocain. hydrochlor.....	0.08.
	Solut. alcohol creosoti (1-8)....	gtt. vj.
	Aq. dest.....	ad. 100.0.

Of this 1 c.c. (*i. e.*, 0.05 cacodylate of soda) is injected daily for eight days. Then injections are stopped for ten days, and then the cycle is commenced again. Excellent results are reported to have followed this line of treatment.

Cocaine and Ichthyol in the Treatment of Anal Fissure.—CHERON recommends the following treatment in this troublesome affection, the application having in his hands been followed by success. They meet an exceedingly difficult complication without resort to general anesthesia and dilatation of the rectum. The anus being partly opened and the fissure discovered, a small tampon of absorbent cotton saturated with a one per cent. solution of cocaine hydrochlorate is applied. At the end of five minutes local anesthesia

is obtained and the fissure can be touched with pure ichthyol. The procedure is renewed on the following days. After the fourth or fifth application the tampon of cocaine is introduced as far as the internal sphincter, and at the end of five minutes it is possible to make a slight dilatation of the anus with Nelaton's dilator. In this way the fissure is exposed to view and can be thoroughly treated with ichthyol.

The Inflammatory Condition in Peritonitis, etc.

An interesting reference to an extensively prescribed remedy is found in that valuable text-book "*Materia Medica and Therapeutics*," by Finley Ellingwood, A.M., M.D., Chicago. The substance of the article is to the effect that the influence as a pain reliever of the popular analgesic—antikamnia—is certainly next to morphine, and no untoward results have obtained from its use, even when given in repeated doses of ten grains (two five-grain tablets). It is especially valuable during the progress of inflammation, and given in pleuritis or peritonitis it certainly abates the inflammatory condition, relieves the pain at once and the diffused soreness shortly, as satisfactorily as opium. It does not derange the stomach or lock up the secretions. It is also of value in pain of a non-inflammatory character, and is a convenient and satisfactory remedy in headaches without regard to cause, if the cerebral circulation be full.

The Use of Carbonated Waters in Obesity.—In the treatment of obesity and other forms of hyper-nutrition, it is often necessary to reduce the diet to a considerable degree. The digestive processes in these patients are often active, and the stomach is soon relieved of its contents and there is an early sense of hunger which is accompanied by a "goneness," of which the patient complains bitterly. This condition is easily met by the exhibition of carbonated waters, which at once relieve this sensation without impairing the digestive power of the organ.

Passiflora Incarnata.—DR. JOSEPH ADOLPHUS reports good results from the use of a saturated tincture of *passiflora incarnata* in quite a variety of conditions, especially where a nerve sedative is required. He prefers the preparation made by J. B. Daniel. He states that unless a thoroughly reliable preparation is secured, the results are not so good. He claims that *passiflora* is a very certain hypnotic when much pain is not present. It is especially of use as a hypnotic in fevers unaccompanied by an inflammation of the meninges. In low-muttering delirium, it has been found of great benefit, being far superior to other remedies usually prescribed. *Passiflora* succeeds in quieting the distressing and fatiguing after-pains that harass some women after parturition. Among other indications for its use are convulsions in children, sleeplessness, enuresis, hysteria, and as an anti-spasmodic.

*La Presse Medicale, June 24, 1899.

†Phila. Med. Jour., July 22, 1899.

‡Deutsche Medizinische Wochenschrift, July 27, 1899.

Book Reviews

Pulmonary Tuberculosis. Its Modern Prophylaxis and the Treatment in Special Institutions and at Home. Alvarenza Prize Essay of the College of Physicians of Philadelphia for the Year 1898. Revised and Enlarged. By S. A. KNOPF, M.D. (Paris and Bellevue, N. Y.), Physician to the Lung Department of the New York Throat and Nose Hospital; Former Assistant Physician to Professor Dettweiler, Falkenstein Sanatorium, Germany; Vice-President of the Pennsylvania Society for the Prevention of Tuberculosis; Fellow of the American Academy of Medicine; Laureate of the Academy of Medicine of Paris, etc. With Descriptions and Illustrations of the Most Important Sanatoria of Europe, the United States and Canada. Octavo. Price net, \$3.00. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa.

This timely book contains a comprehensive view of the prevention and therapeutics of tuberculosis in special institutions and at home. Coming as it does when the modern medical world is electrified by the reports on the value of sanatoria made at the recent International Congress of Tuberculosis, it fulfills a want which every practitioner must feel pleased to see supplied. The chapters upon the historical survey of tuberculosis therapy and the communicability of pulmonary tuberculosis, and the means to combat its propagation by individual prophylaxis, are particularly interesting.

It is to be regretted that the author, who shows himself to be so painstaking in all his work, has not investigated sero-pathy to a greater extent. He contents himself with stating that he is glad to acknowledge that he has not seen any real ill effect from the employment of serum in tuberculosis. The consideration of the prophylaxis is happy in style and thought.

The Temples and Ritual of Asklepios at Epidaurus and Athens. Two Lectures Delivered at the Royal Institution of Great Britain. By RICHARD CATON, M.D., F.R.C.P.; Hon. Physician Liverpool Infirmary; Emeritus Professor of Physiology, University College, Liverpool.

These lectures comprise a description of the Hieron of Epidaurus and the Asklepion at Athens, with beautiful photo-engravings of the ruins of these temples, and restored plans showing the relations which the various divisions bore to one another. The text which bears upon the ritual and methods which the priests used by way of therapeutics are particularly interesting. The author concludes by stating it was in consequence of the founding of a temple of Esculapius on the Island of Tiber that the staff and the serpent of the Epidaurian god have been and remain to this day the symbol of the profession of medicine.

Practical Materia Medica for Nurses, with an Appendix containing Poisons and their Antidotes, with Poison Emergencies; Mineral Waters; Weights and Measures; Dose-List; and a Glossary of the Terms used in Materia Medica and Therapeutics. By EMILY A. M. STONEY. \$1.50. W. B. Saunders, Philadelphia. 1899.

If one will examine the somewhat extensive title of this little book of 300 pages, and if one will consider the various subjects as treated in a concise, readable and yet thorough manner, he will have a fair idea of the contents and the value of the publication. Every nurse should have a copy.

Progressive Medicine.

The second volume of Progressive Medicine (Lea Bros. & Co.) is now before the public and proves to be as satisfactory in every way as the March edition. This volume is devoted exclusively to abdominal surgery, gynecology, diseases of blood, diathetic and metabolic disorders, diseases of the glandular and lymphatic system, and ophthalmology. The excellent plates which are to be found in the chapter on abdominal surgery are especially to be commended.

WHILE the teachings of Physiology in our public schools is generally commended by the profession, and while it is believed that the shortest road to health is to take care of our bodies, yet extended instruction in this branch sometimes meets with protest. One was recently sent to the principal of a high school by the mother of an ambitious daughter who was anxious to secure a coveted diploma. The mother said: "I don't want you to learn my daughter any more about her insides. It ain't decent and it turns her against her victuals."

THE skepticism with which the profession has regarded electricity in the treatment of disease, has been refuted by experimental data. A recent German writer has shown experimentally that muscles that have been treated with electricity after their nerve supply has been cut off recovered several weeks before those that were not so treated. In these experiments animals were employed, and the nerves connecting the muscles under observation were severed, and again sutured, thus providing for restoration after regeneration of the nerve. This experimental work showed that the nutrition of the muscle fibres was kept up by the aid of electricity, the degeneration not being so great and the pathway of conduction ultimately being established, motion was restored long before it was obtained in parts not so treated. Recently Dr. W. J. Herdman of the medical faculty of Ann Arbor has shown the effect of electricity upon guinea-pigs. A number of guinea-pigs treated electrically and fattened, show a gain of ten per cent. in weight over control animals.